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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,215	06/27/2001	Aamer Sachedina	CA920000032/2034P	4818
29141	7590	09/24/2004	EXAMINER	
SAWYER LAW GROUP LLP P O BOX 51418 PALO ALTO, CA 94303			TANG, KENNETH	
			ART UNIT	PAPER NUMBER
			2127	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,215

Applicant(s)

SACHEDINA ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/6/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-15 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “latch” and with it being marked “stealable”, “unstealable”, “stolen” with “flags” and “priority” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

- a. In claims 1, 5, 9, 13, and 14, the terms “stealable” “unstealable”, and “stolen” are indefinite because it is not made explicitly clear in the claim language what this is. In addition, it is unclear what is being stolen or what is unstealable, etc.
- b. In claims 1, 5, 9, 13, and 14, the term “holding the latch” is indefinite because it is not made explicitly clear in the claim language if this refers to holding the latch shut (as in locking) or if holding the latch refers to obtaining the possession of it.
- c. In claims 1, 5, 9, 13, and 14, the term “releasing the latch after the first task has accessed the resource, while still holding the latch” is indefinite because it is not made explicitly clear in the claim language how it is even possible for a latch to be released (unlocked) at the same time as holding the latch (locked).
- d. In claim 9, “remark” is indefinite because it implies that the latch stealable should be marked again. However, the claim language indicates that what is being marked again is the latch unstealable, not stealable.

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e. In claims 13 and 14, “cleanup subroutine” is indefinite because it is not made explicitly clear in the claim language what is being cleaned up how those things are being cleaned up (deleted, removed, reset, etc.).

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

f. In claim 1, 5, 9, 13, and 14, there lacks a structural relationship between “stealable” (line 7) and “stolen” (line 8). It is not made clear in the claim language whether or not these terms are related.

g. In claims 13 and 14, there is no structural relationship between “resources” (line 2) with anything (latch, cleanup, stealable, etc).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-2, 5-6, and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Simmons et al. (hereinafter Simmons) (US 6,574,654 B1).

6. As to claim 1, Simmons teaches a method for providing access to a resource in a programming environment supporting concurrent tasks (*see Abstract*), comprising the steps of:

(a) providing a latch (lock) to a first task (processes or threads), wherein the first task requests the latch to obtain access to the resource (*col. 2, lines 24-27, col. 5, lines 34-40, col. 7, lines 50-55*);

(b) releasing the latch after the first task has accessed the resource, while still holding the latch (hierarchy of lock modes give various permissions and guarantees with these locks) (*col. 1, lines 45-67, col. 2, lines 1-9, col. 4, lines 26-37*);

(c) marking (updating the lock mode) the latch stealable, while still holding the latch (hierarchy of lock modes give various permissions and guarantees with these locks) (*col. 5, lines 62-67 through col. 6, lines 1-10, col. 1, lines 45-67*); and

(d) marking (updating the lock mode) the latch unstealable if the latch is not marked stolen by a second task seeking access to the resource (*col. 5, lines 62-67 through col. 6, lines 1-10, col. 1, lines 45-67*).

7. As to claim 2, Simmons teaches wherein the providing step (a) further comprising the steps of: (a1) providing to the first task a latch marked stealable and held by a holding task (*col. 2, lines 24-27, col. 5, lines 34-40, col. 7, lines 50-55, col. 1, lines 45-67, col. 2, lines 1-9, col. 4, lines 26-37*); and (a2) placing the resource in a consistent state prior to the first task

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accessing the resource (*col. 2, lines 24-27, col. 5, lines 34-40, col. 7, lines 50-55, col. 1, lines 45-67, col. 2, lines 1-9, col. 4, lines 26-37*).

8. As to claim 5, it is rejected for the same reasons as stated in the rejection of claim 1.

9. As to claim 6, it is rejected for the same reasons as stated in the rejection of claim 2.

10. As to claim 9, Simmons teaches a latch mechanism for a programming environment supporting concurrent tasks (*see Abstract*), comprising:

means for providing a latch to a first task (processes or threads), whereby the first task holds the latch (*col. 2, lines 24-27, col. 5, lines 34-40, col. 7, lines 50-55*);

means for the first task to release the latch while holding the latch (hierarchy of lock modes give various permissions and guarantees with these locks) (*col. 1, lines 45-67, col. 2, lines 1-9, col. 4, lines 26-37*);

means for the first task to mark (updating the lock mode) the latch stealable (hierarchy of lock modes give various permissions and guarantees with these locks) (*col. 5, lines 62-67 through col. 6, lines 1-10, col. 1, lines 45-67*); and

means for the first task to remark (updating the lock mode) the latch unstealable where the latch is not marked stolen by a second task seeking access to the latch (*col. 5, lines 62-67 through col. 6, lines 1-10, col. 1, lines 45-67*).

11. As to claim 10, it is rejected for the same reasons as stated in the rejection of claim 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-4, 7-8, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons et al. (hereinafter Simmons) (US 6,574,654 B1) in view of Clark (US 6,598,068 B1).

13. As to claim 3, Simmons teaches maintaining and updating locking modes that represent the state/status and privileges of locks (latches) in a hierarchy system but fails to explicitly teach that what is being updated in these lock modes are flags. However, Clark teaches using a locking system with locking states indicated by flags (*col. 11, lines 1-10*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of flags to the existing system to increase the control of the system by having an indicator which indicates various locking states or modes (*col. 11, lines 1-10*).

14. As to claim 4, it is rejected for the same reasons as stated in the rejection of claims 1 and 3. In addition, Simmons teaches using privileges and permissions which give different levels of priority in the hierarchy system where the permissions are defined by the (updated) lock modes (*col. 1, lines 45-67*) with the Boolean flags (as stated in Clark) having values of 0 and 1.

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15. As to claim 7, it is rejected for the same reasons as stated in the rejection of claim 3.

16. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 4.

17. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 3.

18. As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 4.

19. As to claim 13, it is rejected for the same reasons as stated in the rejection of claim 1.

However, Simmons fails to explicitly teach executing cleanup when “stolen”. However, Clark teaches a locking system with locking states indicated by flags with threads that when finished executes a cleanup as being necessary to prepare the resource for use by another thread or task (*col. 9, lines 59-65 and col. 10, lines 62-67*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of executing a cleanup when it is finished being “stolen” because it increases the accuracy and integrity of the system by allowing for a proper transferring of another task (*col. 9, lines 59-65 and col. 10, lines 62-67*). Simmons teaches maintaining and updating locking modes that represent the state/status and privileges of locks in a hierarchy system but fails to explicitly teach that what is being updated in these lock modes are flags. However, Clark teaches using a locking system with locking states indicated by flags (*col. 11, lines 1-10*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of flags to the existing system to

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increase the control of the system by having an indicator which indicates various locking states or modes (*col. 11, lines 1-10*).

20. As to claim 14, it is rejected for the same reasons as stated in the rejection of claim 13.

21. As to claim 15, it is rejected for the same reasons as stated in the rejection of claim 14 above. In addition, Clark teaches maintaining counts of the number of tasks with a counter with respects to a counter lock (claims 3-6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
9/15/04



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